# DEPARTMENT OF THE NAVY



NAVAL SEA SYSTEMS COMMAND WASHINGTON, DC 20362-5101

IN REPLY REFER TO

NAVSEAINST 4710.14 Ser 56Y2C/928 24 July 1987

# NAVSEA INSTRUCTION 4710.14

From: Commander, Naval Sea Systems Command

Subj: QUALIFIED SERVICES LIST (QSL) PROGRAM

Ref: (a) NAVSEAINST 4710.11

(b) NAVSEAINST 4160.2

Encl: (1) QSL Audit Criteria

(2) QSL Shop Test Requirements

(3) QSL Decertification Criteria

- 1. <u>Purpose</u>. To assign responsibilities for procuring overhaul services of select mission critical equipment and direct use and review of the Qualified Services List to NAVSEA activities.
- 2. Background. In order to reduce the number of post overhaul critical machinery failures, reference (a) directs Naval activities to restrict Class B overhaul selected mission critical equipment to Naval Shipyards or contractors certified by NAVSEA as qualified overhaul activities. Commander, Naval Sea Systems Command has an active program to certify qualified overhaul activities and to ensure competition among qualified sources that is predicated on a common technical baseline. Several QSL documents have been published which detail mission critical equipment, model numbers, APL numbers, hull in which the equipment is installed, and the qualified sources approved to Class B overhaul the equipment. Current copies of the QSL have been distributed under separate cover. Additional copies may be obtained from NAVSEA, Auxiliary Systems Sub-Group (NAVSEA 56Y2C), Washington, D.C. 20362-5101.
- 3. Exceptions. These requirements do not apply to equipment under the cognizance of NAVSEA 08 or the Space and Naval Warfare Systems Command, nor does it modify existing requirements related to design, operation, maintenance, or modification of reactor plant equipment.
- 4. Requirements and Restrictions. The following requirements and restrictions shall apply to all job orders and contracts, advertised or negotiated, that include Class B overhaul work of equipment covered by the QSL.
- a. Contracting activities are to assure that work on QSL equipment is accomplished by Naval Shipyards or NAVSEA qualified sources listed on the QSL.

- b. Where there is only one source for the overhaul, NAVSEA has determined that there are no other sources that have the capabilities of performing a Class B overhaul for the particular equipment. This determination is based on the evaluation of the criteria provided by enclosure (1) for all facilities which have applied for QSL certification. NAVSEA will establish Basic Ordering Agreements (BOA's), with class Justifications and Approval (J & A) where there is only one source for the overhaul. Should the contracting activity choose not to use or be unable to utilize the NAVSEA BOA, NAVSEA 56Y2 will provide supporting documentation to develop individual J & A. Therefore, it is important to initiate local contracting procedures as soon as possible to meet equipment availability schedules.
- c. All Class B overhauls for QSL equipment must be performed by QSL contractor, or a Naval Shipyard. Due to the critical nature of Class B overhauls, overhauls conducted by other than a QSL contractor or Naval Shipyard are considered to be Class C. When it is not possible to utilize a QSL contractor or Naval Shipyard, the contracting activity must notify the customer of the change in status of the overhaul.
- d. For QSL equipment, in-place Class B overhauls are not authorized. Additionally, where a unit must be disassembled for reinstallation, Class B overhauls are only authorized where the QSL contractor is also tasked with the reassembly/alignment of the equipment on-board the ship.
- e. Reference (b) requires NAVSEA approved TRS's to be used as non-deviation standards in all cases where the customer specifies a Class B overhaul. Problems associated with the structure of the TRS make the TRS unbiddable in the private sector. Therefore, for private sector overhauls, the contracting activity shall invoke a generic Class B overhaul Standard Item. For those equipments where a generic Class B overhaul Standard Item does not exist, work specifications shall be developed based on existing Navy TRS requirements for similar units and technical manual and drawing specifications of the actual equipment.
- f. In all cases, the contracting activity shall require Government witnessed shop testing prior to Government acceptance of the item. While full operational testing is desirable it is not always possible or practical. Test requirements specified by enclosure (2) are designed to identify any major deficiencies prior to shipboard installation, and provide reasonable measure of confidence the unit will perform as required. Each QSL contractor must be able to perform the tests specified by enclosure (2).
- g. Waivers from specified overhaul requirements for minor material or performance characteristics may be approved at the local level, with Government contracting activity approval. Major

design and logistics deviation and waiver requests shall be approved by the cognizant hardware systems command. Definitions of major and minor deviations and waivers are provided by DOD-STD-480. Parts, clearances, or conditions for which specified requirements cannot be met require compliance with DOD-STD-480.

- h. The Master Ship Repair Contractor (MSRC) shall pass the complete work specification prepared by the Navy contracting activity to the QSL contractor. The MSRC may not delete or modify work specifications without the approval of the Government contracting activity. The Navy contracting activity, whenever possible, shall also specify that a representative of the QSL contractor be present during removal and reinstallation of the overhauled equipment.
- i. The contractor's work must comply with the requirements of the contract, job order, or work specification, and the quality assurance requirements set forth in MIL-I-45208 or standard item 009-04. Compliance with these requirements and the witnessing of all work specification sign-offs, including shop testing, will be performed by either the Defense Contract Administration Services, Supervisor of Shipbuilding, Conversion and Repair or by other Government inspectors, as specified by the contracting activity. The contracting activity may specify additional Inspection and Verification points in the work specification, as appropriate, to insure the quality of the overhaul.
- j. The Navy Material Quality Assessment Office (NMQAO) has been tasked to establish a data collection and analysis effort for the QSL program. When a Class B overhaul of QSL equipment is specified, the contracting activity shall notify NMQAO and forward a copy of the tasking document to NMQAO. Upon completion of the overhaul, copies of all inspection reports shall be forwarded to NMQAO. Discrepancies by QSL contractors should be documented by use of Quality Deficiency Reports (QDR), DD Form 1715, and forwarded immediately to Naval Material Quality Assessment Office, 80 Daniel Street, Portsmouth, NH 03801 and NAVSEA 56Y2.
- k. In the event of a major technical problem with QSL equipment overhauls, the contracting activity shall immediately notify NAVSEA 56Y2 and arrange for technical personnel to investigate the circumstances. Only when serious cost or scheduling problems prevail should the equipment be disassembled without the QSL contractor and NAVSEA technical representative present. Such decisions should be made at the discretion of the contacting activity.
- l. NAVSEA shall periodically reaudit QSL contractors for which serious deficiencies are reported. Should the contractors be found deficient, NAVSEA shall restrict the equipment for which the contractor may overhaul under the QSL program or may remove the

contractor from the QSL entirely. Enclosure (3) provides criteria for which a contractor may be removed from the QSL.

m. NAVSEA 56Y shall periodically review the equipment contained on the QSL, to determine their criticality. New equipment may be added or existing equipment may be removed based on this review.

m. V. Mulle M. V. RICKETTS

Deputy Commander for Ship Design and Engineering

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#### OUALIFIED SERVICE LIST

### AUDIT CRITERIA

- 1. Each audit consists of five major areas. Those are:
- a. Technical Data. The contractor must possess the data requirements of attachment (1) for each piece of equipment for which he wishes to be certified. For those parts which can not be be procured from commercial source the contractor must possess Level III Technical Drawings. (This requirement can be waived where the contractor has written agreements from the Original Equipment Manufacturer to provide parts.)
- b. Shop Capabilities/Facilities. The contractor must possess adequate machine tools and equipment to support a Class B overhaul. Exact requirements are dependent upon the generic QSL equipment applied for but, in general, consist of all machine tools and equipment expected to be found in an adequately equipped shop. The contractor is permitted to contract out such special items as castings and some welding.
- c. Test Capabilities. The contractor's test facilities shall be capable of meeting the requirements of enclosure (2). Where applicable, facilities shall have the capabilities of conducting steam seal and valve stem leakage flow measurement tests. The test facilities need not be owned by the contractor as long as he possesses written agreement with a company who can meet these requirements. For all cases the contractor must provide test procedures with diagrams of the test setup for each equipment which he wishes to be considered.
- d. Quality Assurance/Inspection. The contractor must demonstrate implementation of a quality inspection system conforming to MIL-I-45208.
- e. Operational Procedures. The contractor must possess a separate set of procedures defining how he will accomplish and monitor a Class B overhaul. The procedures must be of sufficient detail as to specify all actions, from the time he receives the equipment until it leaves his shop.

## QUALIFIED SERVICE LIST

## TECHNICAL DOCUMENTATION REQUIREMENTS

- 1. Military Specifications
  - a. Equipment MIL-SPECS
- b. Any other applicable MIL-SPEC referenced by current issue of equipment MIL-SPECS.
- 2. Technical Manuals (by number)
  - a. Applicable equipment
  - b. Ancillary equipment
- 3. Technical Repair Standards
- a. Applicable NAVSEA approved TRS title TRS number and applicable ships.
  - b. Offerer prepared repair procedures
- 4. Mil-Standards, Handbooks, & Procedures
  - a. Mil-STD-167, Mechanical Vibration
  - b. Mil-STD-271, NTD Requirements for Metals
  - c. Mil-STD-278, Welding Standards
  - d. FED-STD-H28, Screw Thread Standards
- e. NAVSEA 0900-003-8000, Surface Inspection Acceptance Standard
- f. DOD-STD-2182, Procedure or Electro-Deposition of Chromium on Steel Shafting
- 5. Technical Drawings (Drawing No. and Revision)
- a. Outline/Assembly/Level III machining drawings identified by the list of materials found in the technical manual for the individual equipment.

- b. Level III machining drawings must be sufficient for repair of long lead time items or items that would be uneconomical to procure on a one time basis.
  - c. Drawing exceptions:
    - 1. Common hardware items
- 2. Items for which the contractor can identify item specification and approved source and document agreement to obtain item from approved source.

# QUALIFIED SERVICES LIST SHOP TEST REQUIREMENTS

# EQUIPMENT

Forced Draft Blower

Air Compressors

Super Chargers

Main Feed Pump (Turbine driven)

# SHOP TEST

Operate auxiliary L.O. pump, inspect L.O. system for leaks and proper pressure. Using steam to drive turbine with a 15 psi back pressure, spin test blower, check for rubbing and set speed limiting governor (air suction may be blanked to reduce power required to reach rated speed). Test for vibration (IAW MIL-T-17523) steam leakage at steam joints and packing areas, and bearing temperatures. Test procedures must be approved by NAVSEA equipment Life Cycle Manager (LCM).

Perform operational test in accordance with LCM approved overhaul standard.

No test is required. Naval Ship \_ Systems Engineering Station inspection is required.

Operate auxiliary L.O. pump, inspect L.O. system for leaks and proper pressure. Using steam to drive turbine with a 15 psi back pressure, spin test turbine, check for rubbing, test overspeed trip and set speed limiting governor (pump may be decoupled from turbine to reduce power required to reach rated speed). Test for vibration IAW MIL-T-17523, steam leakage at steam joints and packing areas, and bearing temperatures. Test procedures must be approved by LCM.

Pump End: Perform full capacity testing where conditions permit. When this is not feasible, a reduced speed or capacity test is permitted. This testing must adhere to the calculation of plotting method of the Hydraulic Institute Standards for centrifugal pump test code. Use of electric motor or turbine as the pump prime mover is acceptable. Test procedures must be approved by LCM.

### QUALIFIED SERVICES LIST

# DECERTIFICATION CRITERIA

- 1. Once approved a contractor's performance shall be periodically reviewed. Criteria for which a contractor may be restricted or removed from the QSL includes, but is not limited to:
  - a. noncompliance with work specifications
- $\ensuremath{\text{b.}}$  failure to follow established quality assurance procedures
  - c. significant loss or change in management personnel
- d. failure to test in accordance with equipment requirements
  - e. use of inferior or incorrect parts
  - f. a history of post-overhaul failures
- g. a negative status change in any criterion for which the facility was approved, including loss of technical data, production or test facilities and parts or testing agreement.